

## STRATEGIC MOBILITY: FORGOTTEN CRITICAL REQUIREMENT OF THE CONTEMPORARY OPERATIONAL ENVIRONMENT

BY

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CONTEMPORARY OPERATIONAL ENVIRONMENT**

by

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## **ABSTRACT**

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A critical requirement of the United States Defense Strategy is Power Projection. Power Projection is dependent upon Strategic Mobility. The capabilities of the United States Strategic Mobility Triad are not sufficient to meet the current challenges facing the Combatant Commander in the world today.

The United States must be able to move forces around the world to project power and protect its interests. Currently, the United States lacks the ability to project land power at the speed and tempo required by the Combatant Commander's in today's Current Operational Environment (COE) characterized with volatility, uncertainty, complexity, and ambiguity. This Strategic Mobility problem limits their ability to deter conflict, respond with sufficient land-power to prevent escalation of a crisis or expansion of the conflict, or to defeat opponents quickly and decisively.





## STRATEGIC MOBILITY: FORGOTTEN CRITICAL REQUIREMENT OF THE CONTEMPORARY OPERATIONAL ENVIRONMENT

Victory is the beautiful, bright-colored flower. Transport is the stem without which it could never have bloomed.

—Winston S. Churchill<sup>1</sup>

In 2001, I authored two articles, Strategic Mobility: The U.S. Military's Weakest Link and Transforming Strategic Mobility that were subsequently published in *Army Logistician* in which I made the argument that strategic Mobility was the U.S. Military's weakest link. In the seven years since those articles many things have changed and many have not. Logisticians are just as guilty as other tacticians of refighting the last war. America continues to fight a Global War on Terror with unprecedented military spending, while conducting modernization programs, C-17 procurement, the Large Medium-Speed Roll-On-Roll-Off (LMSR) vessel buy completion, and base re-alignment. The Army has accomplished the largest transformation in its history; yet despite all of the changes in procurements, modernizations, and modularity, my original argument still holds true. Strategic Mobility has not been fixed and is the weakest link in the strategic chain of getting the right forces to the proper place in space and time in order to allow the Combatant Commander to either deter, de-escalate, or decisively defeat an adversary.

The future operational environment will be characterized by a wide variety of potential national and transnational adversaries with capabilities ranging the full spectrum with divergent motives to do major harm to the United States homeland and national interests and to those of our allies. Crises will develop rapidly which will require swift response by U.S. Forces. These crises will run the gambit from humanitarian

missions to peacemaking missions to combating terrorism to major combat operations to countering weapons of mass destruction (WMD).

Such operations will take place in areas where the U.S. has little or no footprint and in countries that have little or no developed infrastructure. They will lack major ports, rail and road networks, and modern airfields. These countries may not be conducive to rapid entry. Furthermore, the adversary could adopt anti-access and area-denial measures which would force the United States to utilize forcible entry.

The 2001 Quadrennial Defense Review Report (QDR) directed the Department of Defense (DoD) to move away from a threat based planning model to a capabilities based model.<sup>2</sup> It calls for DoD to possess the capability to “swiftly defeat aggression in overlapping major conflicts while preserving for the President the option to call for a decisive victory in one of those conflicts – including the possibility of regime change or occupation; and conduct a limited number of smaller-scale contingency operations.”<sup>3</sup> It goes on to say, “the US military has an existing shortfall in strategic transport aircraft.”<sup>4</sup>

Less than five years later in the 2006 QDR, DoD states, “Extensive investments in cargo transportability, strategic lift, and prepositioned stocks over the past decade have yielded military forces capable of responding to a broad spectrum of security challenges worldwide.”<sup>5</sup>

Did the United States military really fix its Strategic Mobility shortfalls in five short years? What is the true capability of the Strategic Mobility Triad? What needs to be done to fix it? Is Strategic Mobility really a critical requirement? Does it really matter?

The purpose of this paper is to illustrate the shortcomings that still exist in the current capabilities of the Strategic Mobility Triad. In this paper I will demonstrate that

after seven years of major combat operations and transformation, these weaknesses are still alive. The focus will be on why this critical requirement still has not been adequately addressed and what changes are needed in the Mobility Triad to once again make the Army a viable first option. It will analyze available options and provide recommendations on how to bridge the ever widening gap between mobility capabilities and requirements.

### Background

The United States Army has been implementing major changes during the last ten years. It has undertaken a major transition program to move away from the Army of Excellence model to one that is lighter, more lethal, less logistically demanding, and more deployable. The Army has modularized its Brigades and has embraced the idea of being expeditionary; however, there is still a problem that has not been adequately addressed. In order to project land-power at the speed and tempo required by the Combatant Commanders to deter conflict, prevent escalation, or to defeat opponents quickly and decisively, the U.S. Military must be able to project its land-power either into or within the area in crisis. Unfortunately, this critical requirement cannot be met with the resources the United States currently possesses.

For the last 20 years the United States has been paying lip service in addressing its Strategic Mobility requirements. Throughout the twentieth century, the Strategic Mobility Triad comprised of airlift, sealift, and prepositioned equipment steadily improved. But after Desert Storm, the U.S. military's ability to project power has atrophied. Since the end of the Cold War, when the United States reduced its forward presence overseas, the centerpiece of U.S. defense strategy has been power

projection. Power projection is the ability to rapidly and effectively deploy and sustain U.S. forces in and from multiple, dispersed locations. Complementing overseas presence, power projection strives for unconstrained global reach. Global power projection provides our national leaders with the options they need to respond to potential crises.

In order to better understand the current posture of Strategic Mobility in the power projection sense we must look at what preceded the current strategy of power projection. During the period of the Cold War, the United States pursued a strategy that was one of containment. This strategy relied heavily upon massive amounts of pre-positioned equipment. This equipment was stored in pre-configured sets known as POMCUS sites. These pre-configured sets were basically a complete second set of equipment designated for different Army Divisions. The Continental United States (CONUS) based troops could quickly fall in on this equipment with the assistance of airlift to deploy them. After the troops employed the pre-positioned equipment, in accordance with their General Defense Plan to contain the Soviet threat, then sealift would provide the means to transport the follow-on sustainment materiel and additional forces from CONUS to the theatre of operations.

With the end of the Cold War, the United States was left as the world's only super power and the strategy changed from one of containment to one of engagement. With the end of the Cold War the Clinton Administration cashed in on the "peace dividend" and shrank the Army's end strength and its presence overseas. From 1990 to 1999, more than 239,000 troops returned from forward locations and 82 military installations on foreign soil closed.<sup>6</sup>

To support the engagement strategy the military adopted a power projection strategy. This strategy is dependent upon on the Strategic Mobility Triad to project the U.S. military's armed forces rapidly anywhere in the world. This strategy is reinforced and built upon in key planning documents, speeches, and comments made by our nation's leaders.

The 1997 National Security Strategy introduced an integrated strategic approach embodied by the terms Shape, Respond, and Prepare Now. The 1997 National Military Strategy was based on these concepts. It builds on the premise that the United States will remain globally engaged to Shape the international environment and create conditions favorable to U.S. interests and global security. It emphasizes that our Armed Forces must Respond to the full spectrum of crises in order to protect our national interests. It further states that as we pursue shaping and responding activities, we must also take steps to Prepare Now for an uncertain future.<sup>7</sup>

The 1999 National Security Strategy states, "Strategic mobility is the key element of our strategy. It is critical for allowing the United States to be first on the scene with assistance in many domestic or international crises, and is a key to successful American leadership and engagement. Deployment and sustainment of U.S. and multinational forces requires maintaining and ensuring access to sufficient fleets of aircraft, ships, vehicles and trains, as well as bases, ports, pre-positioned equipment and other infrastructure."<sup>8</sup>

In October 1999, the United States Army Chief of Staff announced a strategic mobility requirement of moving a medium brigade anywhere in the world in 96 hours, deploy a division in 120 hours and deploy five divisions in 30 days.

In 2000, the Army Science board published a study in which it made a very profound and still relevant statement, "...a highly lethal and survivable force incapable of rapid deployment was not relevant in a power projection Army. Likewise, a highly deployable "light" force with limited lethality and survivability is not a likely deterrent to a determined foe."<sup>9</sup>

The 2004 National Military Strategy stated, "Overlapping major combat operations place major demands on strategic mobility. Achieving objectives in such operations requires robust sealift, airlift, aerial refueling and pre-positioned assets. Strategic mobility that supports these operations also requires supporting equipment to store, move and distribute materiel and an information infrastructure to provide real-time visibility of the entire logistics chain."<sup>10</sup>

On September 23, 2004, the U.S. European Command Commander, Marine Corps General James Jones, testified to Congress that building a larger array of airlift and sealift platforms is an essential component of the sweeping overhaul that would, if approved, position the U.S. forces at a number of small, dispersed bases across the European region.<sup>11</sup>

So to answer my last two questions, is Strategic Mobility really a critical requirement? And does it really matter? I believe that our nation's leaders and planning documents have shown the answer to these questions is a resounding YES.

#### Requirements and Capabilities. Strength or Weakness?

The 2001 QDR set deployment goals for two different strategies. The first was to simultaneously defend the single homeland, conduct deterrence in four regions of the globe; execute two major campaigns in swift fashion – winning one of them by taking

over the enemy's capital. The second strategy calls for delivering needed forces to a theater within 10 days of a deployment order, swiftly defeating the enemy there within 30 days, and resetting the force 30 days after that victory.<sup>12</sup>

The 2006 QDR does not address specific requirements but it does give the following guidance, "Mobility capabilities will be fully integrated across geographic theaters and between warfighting components and force providers, with response times measured in hours and days rather than weeks".<sup>13</sup> It goes on to state, "the future force will be expeditionary and will increasingly use host-nation facilities with only modest supporting U.S. presence, decreasing the need for traditional overseas main operating bases with large infrastructures and reducing exposure to asymmetric threats."<sup>14</sup>

The assumptions put forth in the 2006 QDR are a bit problematic since it only addresses planning on best case scenarios. Analysts have argued that other countries could become increasingly unwilling to permit U.S. forces to operate out of their country to carry out combined operations. Additionally, some analysts have suggested that future adversaries may not freely allow U.S. forces to build-up their forces at nearby air and sea ports, as in recent operations (e.g. DESERT STORM and IRAQI FREEDOM).<sup>15</sup> These access issues should be addressed vice assumed away.

Airlift, Sealift and Prepositioning comprise the Strategic Mobility Triad. These forces include transport aircraft, cargo ships, forward bases, equipment afloat, and ground transportation operated by the Department of Defense and commercial carriers. While on the surface, the capabilities of the Mobility Triad appear to project a picture of robustness and depth; they in fact have built-in weaknesses and do not meet the requirements as laid out by the Department of Defense.



Strategic airlift is a combination of military airlift and commercial aircraft that participate in the Civilian Reserve Air Fleet (CRAF). The Mobility Requirements Study for 2005 (MRS-05) identified a need for a minimum of 51.1 Million-Ton-Miles per Day (MTM/D) of airlift capability. The study also observed there would be other additional demands on the airlift system early in major theater campaigns increasing the MTM/D to 54.5 MTM/D with the possibility that the increase could be as high as 67 MTM/D.<sup>16</sup> The Chairman of the Joint Chiefs of Staff, the Services Chiefs, and the Combatant Commanders reviewed the study and supported the requirement of 54.5 MTM/D of airlift capability as the minimum ‘moderate-risk’ capability to support the National Military Strategy.<sup>17</sup> The Government Accounting Office (GAO) and the Air Force both agree that the military is anywhere from 17 to 30 percent short of its required airlift. All of the Combatant Commanders list the shortfall in strategic lift in their top five priorities.<sup>18</sup>

According to MRS-05 the 54.5 MTM/D airlift requirement would be reached utilizing the CRAF contributing 20.5 MTM/D and the US Air Force accounting for the 34 MTM/D difference.<sup>19</sup> At the end of FY 2001, the military airlift fleet consisted of 58 C-17s, 88 C-141s, 104 C-5s and 418 C-130s. Currently, the airlift fleet consists of 158 C-17s in the active Air Force, 8 in the Air National Guard, and 8 in the Reserve; there are zero C-141s left in the inventory; a total of 111 C-5s, and there are 151 C-130s in the active Air Force, 181 in the Air National Guard and 103 in the Reserve. That is a gain of 18.8% lift capability, however, Air Mobility Command (AMC) leaders estimate that the true lift requirements is not 54.5 MTM/D but between 69.5 MTM/D to 76.5 MTM/D based on actual experience in Afghanistan and Iraq.<sup>20</sup> This is an increase of 27.5% to 40.3% over current stated requirements.

The military airlift capabilities have improved somewhat over the last seven years but these gains have been out-paced by increased requirements. The level of mobility is inconsistent with the image portrayed by the planners. The news is actually even worse when you consider the many other factors not taken into account, for instance, maintenance posture, airfield throughput capability, and level of airfield modernization.

Sealift, the second triad leg, is designed to get the bulk of the needed equipment to the area of operations between 10 to 30 days after call-up and it is the primary means to sustain the fight. Sealift capacity comes from three sources: government-owned ships, commercial ships under long-term charter to the Department of Defense, and ships operating in commercial trade.

As with airlift, the current number and capabilities of the fleet do not meet projected requirements. The Mobility Requirements Review 2005 (MRS 2005) requires 10 million square feet of organic DoD sealift.<sup>21</sup> MRS 2005 calls for 19 Fast Sealift Ships (FSS) and Large, Medium Speed, Roll-on/Roll-off (LMSR) ships plus 330 other ships plus contracts to meet the requirements.<sup>22</sup> Currently, the U.S. Navy owns or charters 120 ships. Of the 120, 82 are in the Military Sealift Command (MSC) Active Force and 38 are in the Ready Reserve Force. Only 28 of the 120 ships are medium speed or higher. MSC owns eight FSS, which can travel in excess of 30 knots, and 20 LMSR ships, which can travel at speeds up to 24 knots.<sup>23</sup>

Together, all eight FSS' can transport nearly the equivalent of a mechanized division (200 C-17 payloads) from the East Coast to Europe in less than six days or to the Arabian Gulf in 18 days. The LMSR can transport the equivalent of 500 C-17 payloads up to 12,000 nautical miles at 24 knots.<sup>24</sup>

Just like the airlift leg of the Mobility Triad, the sealift leg looks great on paper and briefs well until proper analysis is done. Once again the capabilities do not deliver as advertised or as planned. During the Gulf War, three out of the eight Fast Sealift Ships (FSS) were late and a fourth broke down in route. The first wave of ships only averaged 23 knots vice the 33 knots that was touted, thus adding five days in transit time. The RRF fared much worse with only 25% of the 44 ships activated in the first 12 days deploying on time with 50% over five days late and during the second phase of activation at C+119 an additional 26 ships were activated with only four on time and over 50% were over 10 days late.<sup>25</sup> The problems continued after the terrorist attacks of 11 September 2001, an RRF ship failed to make its deployment time when numerous crewmembers walked off the ship.

Over the last 20 years, the government-owned fleet has been modernized somewhat with the purchase of 20 LMSRs and the procurement of a new Logistical Support Vessel. However, these ships are slow and only account for 25 percent of the total fleet. The average age of the RRF ships is over 37 years old with nine of the ships in their final ABS survey cycle, and six ships over 50 years old.<sup>26</sup> Much needs to be done.

The final leg of the Mobility Triad is prepositioning. Prepositioning is comprised of land based pre-positioned equipment and the Afloat Pre-positioned Force (APF). Land-based stocks include seven Heavy Brigade Combat Teams (HBCTs) spread out in Europe, Southwest Asia and Korea. In the APF all ships are self-sustaining. They all have organic cargo handling capability enabling them to discharge their cargo at non-existent or limited port facilities. The APF has three distinct organizations: the Logistics

Prepositioning Force (LPF), the Maritime Prepositioning Force (MPF), and the Combat Prepositioning Force (CPF). For the purposes of this paper I will focus on the Combat Prepositioning Force, specifically, on the Army's Prepositioned Stocks (APS).

The APS program consists of prepositioned equipment that is stored in pre-configured unit sets that are either ashore or afloat. APS stocks are configured as combat brigade sets with ammunition minus To Accompany Troop (TAT) equipment, which is individual weapons and equipment. The APS is divided into five regional locations: CONUS, Europe, Afloat in Diego Garcia, NE Asia, and SW Asia. All contain sets of equipment with the exception of CONUS.

Land-based prepositioning programs are maintained in Europe, Southwest Asia, and the Pacific region. In, Europe, the Army stockpiles equipment for three HBCTs. Two are in central Europe and one is in Italy. In Southwest Asia, the Army stocks equipment for two BCTs. One HBCT is in Kuwait and one in Qatar. In Korea, there is one HBCT.<sup>27</sup>

The current Army's strategy of becoming more expeditionary relies heavily upon prepositioned equipment and materiel, ready for issue to Soldiers. The Army Prepositioned Stocks program supports the National Military Strategy by strategically prepositioning vital war stock afloat and ashore worldwide, thereby reducing the deployment response times of the modular, expeditionary Army. With the National Defense Strategy dictating a greater proportion of troops home-based in the United States, APS abroad and afloat are indispensable to America's global force-projection capability.

There are a few challenges when it comes to the APS. First and the hardest to overcome are the ships utilized for the APS. During Operation Restore Hope in

Somalia, three pre-positioned LMSRs were unable to unload their cargo because their draft prevented them from entering any port. After two weeks of trying to locate a suitable port, the ships returned to Diego Garcia without discharging their cargo.<sup>28</sup> The advantage provided by the size of these ships is also a disadvantage since it limits the choice of ports.

The Department of Defense conducted a Worldwide port Study “Quick Look” of potential SPODs in the Central Command (CENTCOM) and Pacific Command (PACOM) areas of responsibility as these areas are viewed as most likely areas for future conflicts. Ports are considered militarily significant today if they can accommodate the LMSR which has a draft of 35 feet. Shallow draft sealift with limited overall length provides the capacity to access many more ports that are not considered militarily significant.<sup>29</sup> For example, in Korea, shallow draft vessels expand the amount of accessible ports by 84 percent.<sup>30</sup> Also, the amount of equipment the LMSRs can carry must be taken into account. The space necessary for Receipt, Staging, Onward Movement and Integration (RSOI) is immense. Because of America’s increased dependency on large modern ports, a potential adversary’s strategy to deny or delay the United States in deploying forces becomes very simple. Utilizing mines, submarines, Special Forces, terrorism, sabotage, or Tactical Ballistic Missiles (TBS), the enemy could greatly hamper the United States ability to reinforce via the sea.

The second challenge is that the transport problem crosses over to the land-based pre-positioned equipment. During Kosovo, the United States deployed two LSVs to provide intra-theater lift to transport heavy equipment between the Balkans and Italy. It took 23 days to move the LSVs from CONUS to the equipment site in Italy.<sup>31</sup> The

problem with land-based pre-positioned stocks, unless the conflict is within 100 miles of the site, is they are difficult to move at the speed required by the Combatant Commander.

Lastly, currently America's APS is exhausted in all theaters. The plan for APS at the beginning of combat operations in Iraq was to issue equipment from APS and then reconstitute the APS as combat units rotated back to CONUS. This did not happen and the APS was taken down even further in 2007 when APS-3 (Diego Garcia) was off-loaded to constitute a Heavy and Light Brigade Combat Teams at Fort Riley and Fort Hood. Also, there are significant critical equipment shortages across the Army that also impact APS including up-armored High-Mobility Multipurpose Wheeled Vehicles (HMMWVs), materiel handling equipment (MHE), and crew-served weapons to name just a few.

Unless sealift and APS has access to a modern port they are dependent upon another deployment multiplier, Joint Logistics Over the Shore (JLOTS). JLOTS is a unified commander's joint employment of Army and Navy Logistics Over the Shore (LOTS) assets to deploy and sustain a force. JLOTS operations allow U.S. strategic sealift ships to discharge through inadequate or damaged ports, or over a bare beach. JLOTS watercraft can also be used to operationally reposition units and materiel within a theater.

As with all legs of the Mobility Triad, JLOTS also has serious challenges. JLOTS is dependent upon the Army's watercraft fleet which is comprised of six Logistics Support Vessels (LSV) and 35 Landing Craft Utility 2000 series (LCU-2000) vessels. The LSV provides worldwide transportation support of combat vehicles and sustainment

cargo. It is primarily utilized for intra-theater line haul of cargo and equipment for tactical resupply missions to remote underdeveloped coastlines and inland waterways. It is also used for JLOTS missions by discharging or back loading strategic sealift vessels such as the LMSR. All tracked and wheeled vehicles including the M1 tank can be transported on a LSV during JLOTS operations. The LCU-2000 has similar capabilities and uses as the LSV, except that it is limited as a worldwide deployable vessel by distance, weather, and sea conditions. The main problem with these vessels is the four of the six LSVs will reach their Economic Useful Life (EUL) in 2013 and the LCU-2000 fleet will reach its EUL by 2018.<sup>32</sup>

There are two further challenges JLOTS is facing. The first is lack of importance. Many years have passed since the last time that the United States has been forced to utilize sub-standard ports so JLOTS, to a large degree, has been forgotten. There has not been a full up, complete exercise done in years. The second challenge is sea states around the world. According to the Defense Science Board Task Force on Mobility, sea states at the North end of the Arabian Gulf would allow JLOTS operations only 32 percent of the time and less than 40 percent of the time off of the east coast of Korea.<sup>33</sup>

Each leg of the Mobility Triad is lacking. Airlift requirements outstrip capabilities. The utility of sealift is degraded by access to ports, port capacity, and condition of facilities at both the Seaport of Embarkation (SPOE) and Seaport of Debarkation (SPOD), and the age of the U.S. Fleet. Land-based pre-positioned equipment is not positioned correctly, takes a lengthy amount of time to arrive in theater, and as previously stated, is exhausted. Can the Mobility Triad be improved?

## Options

Strategic Mobility is the combination of airlift, sealift, and pre-positioned forces. Together they make up the Strategic Mobility Triad. Each in itself does not provide the answer, but rather it takes the combined assets of the Triad to meet the requirements of the Combatant Commander's.

The problems with the Strategic Mobility Triad are that airlift requirements overshadow capabilities; sealift is old and slow; and pre-positioned equipment is not always in the right position, slow to move and is currently exhausted. America needs a bridging strategy that delivers viable solutions to the Combatant Commander's.

Strategic Mobility is not only comprised of the Strategic Mobility Triad but is also broken down into inter-theater and intra-theater lift. Strategic or inter-theater lift forces primarily provide common-user lift into theater from outside the theater. Theater or intra-theater lift forces primarily provide common-user lift within the theater to the same array of users as served by inter-theater lift.<sup>34</sup>

There are many options the Department of Defense could pursue in solving the Strategic Mobility dilemma. The first of course is to do nothing. According to the 2006 QDR there are no problems with Strategic Mobility and there are many analysts whom would point to current operations in Iraq and Afghanistan to prove that point; they would be wrong in their choice of examples. The current fight is not an expeditionary fight. So what other options are possible to address the problem?

To fix airlift, either capabilities must be increased or requirements mitigated to match current capabilities. The airlift fleet has already gone through extensive modernization with the retirement of the C-141 airframe, the procurement of the C-17, and the upgrades to the C-5. Short of buying more airframes there is not much more the



United States can do to increase its airlift capabilities so the best option to fix airlift is to utilize the other legs of the Triad to mitigate the airlift requirements. That being said, the United States still needs to proceed with looking to the future needs of airlift by pursuing the development and procurement of future platforms such as Global Range Transport (GRT), Ultra-Large Airlifter (ULA), C-17 aircraft with a Payload/Range Extension Program (PREP), and Super Short Take Off and Landing (SSTOL) aircraft.

As with airlift, the United States needs to continue to pursue the acquisition and development of future sealift platforms such as shallow Draft High Speed Sealift (SDHSS), Fast Sealift Monohull, Navy Vision Trimaran High Speed Sealift (NVTHSS), and Navy Vision Surface Effect Ship high Speed Sealift (NVSESHSS).

Just as our planning model has moved away from a threat based to a capabilities based model, the same must be applied here. Addressing the needs of sealift and the positioning of the pre-positioned equipment will not only fix their shortcomings but will also mitigate the airlift requirements thereby strengthening the airlift leg of the Triad. The fix for sealift is to modernize the fleet and the fix for pre-positioned equipment is better placement.

### Recommendation

Until technology allows the United States to move forces from CONUS anywhere in the world in under seven days, regardless of SPODs and APODs, forward positioning of equipment is the key. The way to fix the Mobility Triad is to take the holistic approach. The United States cannot fix each leg of the Triad but by focusing on intra-theater lift and positioning of the pre-positioned equipment, the United States can fix inter-theater

lift and fix all the legs of the Triad by utilizing the strengths of each leg to fix the Triad as a whole.

There is a current off-the-shelf capability that will provide a bridging strategy until the future platforms become attainable, that can rapidly provide Combatant Commanders forces. That capability is the High-Speed Catamaran. Coupling the Catamaran with APS and positioning them in the different COCOM AORs would not only provide a force that the Combatant Commander could rapidly deploy but would also provide organic intra-theater lift capability once the vessels discharge the APS that would decrease the airlift requirements. They would also provide a platform to rapidly deliver aid supplies during natural disasters without utilizing war ships and sending the wrong message as just happened in Georgia and Myanmar.

The current commercial off-the-shelf TSV has the following capabilities:

- Average Speed: 40+ knots
- Self Deployment Range: 4726+ Nautical Miles @ 40 knots
- Intra-Theater movement & Maneuver Lift of Intact Unit Sets: 350+ troops plus Gear
- Cargo Space: 25 – 35K Square Feet
- Cargo Tonnage/Delivery Range: Up to 1,250 Short Tons (17 M1A2 Tanks)/1000 Nautical Miles
- C4ISR Package<sup>35</sup>

A recent example of a TSV type capability was demonstrated in OIF. The *Spearhead*, a commercial fast, shallow draft ferry being leased from an Australian firm by the Army, moved the 101<sup>st</sup> Airborne Division's military police from Djibouti to Kuwait,

making the 2,000-mile trip in two and a half days. An LSV would have needed 10 days to make the voyage and could only transport equipment, requiring the troops to fly separately.<sup>36</sup>

In 2003, the Army conducted a port study of CENTCOM and PACOM AORs looking at accessibility of 282 ports in 26 countries. LMSRs can only access 27 percent of these ports due to its draft of 9.1 to 10.5 meters compared to the TSV which can access 74 percent of the ports because its draft is between 4.6 and 6 meters.<sup>37</sup>

The Catamaran would provide access to more austere ports thus limiting the area-denial options that potential adversaries would have. If we look back at World War II and the Inchon Landings in Korea, the United States has had to conduct forced entries before without the use of ports. Why do we now discount that possibility?

During the Vigilant Warriors 01 wargame, the U.S. and allied forces employed a mixture of current lift assets and promising future concepts. Of all current and future air and sealift capabilities, shallow draft high-speed ships (SDHSS) and the Theater Support Vessel (TSV), because of their speed, throughput capability, and capacity most significantly impacted force closure rates.<sup>38</sup> SDHSS and TSVs were the only platforms that could deliver troops and equipment together in sufficient size to bring immediate combat power to bear. Additionally, while in transit, commanders could conduct en route mission planning and receive intelligence updates. The TSV provided transformational capability and operational maneuver of Army formations.<sup>39</sup> An additional benefit realized in the wargame was since the TSV can carry approximately 7 times as much as the C-17 and 24 times as much as the C-130, it had the added benefit of reducing intra-theater airlift requirements elsewhere in theater.<sup>40</sup>

As a strategic leader and planner I propose acquiring enough high-speed Catamarans that could carry four BCTs. The type of BCT would be up to the Combatant Commander based on their assessment of the Current Operating Environment (COE). The positioning of these BCT sets on board the Catamarans is crucial. One Brigade set each for the CENTCOM, PACOM, EUCOM, and SOUTHCOM AOR under the control of the Combatant Commander. Each Combatant Commander would have a BCT afloat that could rapidly deploy to an Intermediate Staging Base (ISB) to marry up the equipment with Troops deployed out of CONUS and each of these sets could be mutually supporting if the crisis called for more force. The PACOM set could move quickly to the CENTCOM AOR if needed and vice-versa.

The Strategic Mobility Triad has many weaknesses. Waiting for future platforms is not the answer. This is just one way to fix the problem. There may be others but none that pass the common sense test. This dilemma must be analyzed holistically as a Joint problem. It is not a single Service problem and therefore, cannot be approached as one.

### Conclusion

As I stated at the beginning of the paper, Strategic Mobility has not been fixed and is the weakest link in the strategic chain of getting the right forces, to the proper place in space and time in order to allow the Combatant Commander to either deter, de-escalate, or decisively defeat an adversary.

I believe I have shown that the 2006 QDR which stated, "Extensive investments in cargo transportability, strategic lift, and prepositioned stocks over the past decade have yielded military forces capable of responding to a broad spectrum of security

challenges worldwide”,<sup>41</sup> is at best misleading and at worst wishful thinking of the highest order.

Eighty percent of all countries border on the coast, 80 percent of the world’s capitals lie within 350 miles of the coast, and 95 percent of all the world’s population lives within 500 miles of the coast.<sup>42</sup> Currently, the United States cannot move significant ground forces to a crisis area in a timely manner. The recent National Security Strategy states that either Host Nation or an Allied Nation APODs and SPODs will be used to quickly move forces into the crisis area. An examination of past and potential crisis areas reveal most border the world’s oceans and are in remote, unimproved areas of the world: Somalia, Iraq, Iran, Israel, Yemen, Myanmar, Pakistan, India, Sierra Leone, Sri Lanka, China, Korea, Taiwan, Georgia, Sudan, East Timor, Venezuela, and Cuba. Half of these countries sit astride strategic waterways that would impact the United States and our Allies.

If the United States would have to engage any of these countries militarily, the Combatant Commander would need all the assets that the Mobility Triad has in order to respond to any and all contingencies. If the United States wants to continue to provide the world with political, economic, informational, and military leadership it will need to have the ability to flow military forces into the numerous trouble spots throughout the world.

The United States cannot afford to rely on possible Host Nation or Allied Nation support. Nor can it rely on limited air transport and slow sealift to get our forces quickly to the crisis area. The United States must quit paying lip service to the shortfalls in our Strategic Mobility Triad and leverage the available technology and create a truly inter-

dependent and complimentary Mobility Triad that is a critical requirement for any operational and strategic success

### Endnotes

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<sup>4</sup> Ibid., 8.

<sup>5</sup> U.S. Department of Defense. *Quadrennial Defense Review Report* (Washington, DC: Government Printing Office, 6 February 2006), 54.

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<sup>13</sup> U.S. Department of Defense. *Quadrennial Defense Review Report*, 53.

<sup>14</sup> Ibid.

<sup>15</sup> Congressional Research Service, *Strategic Mobility Innovation: options and Oversight Issues*, 3.

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<sup>21</sup> U.S. Department of Defense, *Mobility Requirements Study for 2005*, 6.

<sup>22</sup> *Ibid.*, 7.

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<sup>28</sup> Kenneth Allard, *Somalia Operations: Lessons Learned* (Fort McNair, Washington DC: National Defense University Press, January 1995), 50.

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<sup>39</sup> Ibid.

<sup>40</sup> Ibid.

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